

WHAT IS CLAIMED IS:

1. A rights management architecture for securely delivering content to authorized consumers, the architecture comprising:
 - a content provider;
 - a consumer system for requesting content from the content provider;
 - the content provider generating a session rights object for accessing the content;
 - a KDC (key distribution center) for providing authorization data to the consumer system, the authorization data for accessing the content;
 - a caching server for comparing information in the session rights object with the authorization data; and
 - the caching server forwarding the requested content to the consumer system if the information matches the authorization data.
2. The architecture of claim 1 wherein the consumer system is redirected to the caching server to receive the requested content.
3. The architecture of claim 1 wherein the caching server and the content provider are combined into a single system identified .
4. The architecture of claim 1 wherein the caching server employs real time streaming for securely forwarding the encrypted content.
5. The architecture of claim 1 wherein the requested content is encrypted for forwarding to the consumer system.
6. The architecture of claim 4 wherein the caching server and the consumer system exchange control messages for supporting transfer of the requested content.
7. The architecture of claim 6 wherein the control messages are encrypted and authenticated.
8. The architecture of claim 5 wherein the caching server comprises one or more cache disks for storing encrypted content.

1 9. The architecture of claim 5 wherein
2 the KDC distributes cryptographic keys, the KDC employing a blend of
3 symmetric and public algorithms for distributing the cryptographic keys.

1 10. The architecture of claim 5 further comprising
2 a key management protocol for establishing keys between the caching server
3 and the consumer system.

1 11. The architecture of claim 10 wherein the key management protocol
2 comprises
3 a key request message for requesting a session key from the caching server
4 and
5 responsive thereof, a key reply message for providing the session key to the
6 consumer system.

1 12. The architecture of claim 11 wherein
2 the session rights object and the authorization data are included in the key
3 request message;
4 wherein the caching server compares information in the session rights object
5 to the authorization data; and
6 if the information matches the authorization data, the session key being
7 provided to the consumer system.

1 13. The architecture of claim 12 wherein
2 the content provider generates the session rights object specifying the user's
3 access privileges for the content.

1 14. A rights management method for securely delivering content upon
2 request from a caching server, the method comprising:
3 providing a content provider communicably coupled to the a caching server;
4 providing a key management protocol comprising the steps of,
5 forwarding a ticket challenge message from the caching server to the content
6 provider, the challenge message for initiating key management;
7 responsive thereof, sending a key request message from the content provider
8 to the caching server;
9 responsive thereof, sending a key reply message from the caching server to the
10 content provider;
11 responsive thereof, sending a security established message from the content
12 provider to the caching server; and

responsive thereof, sending a security established message from the content provider to the caching server; and
establishing a set of keys for securely delivering content from the content provider to the caching server.

15. The method of claim 14 further comprising
providing a consumer system for streaming content from the caching server.

16. The method of claim 14 further comprising
providing a key distribution center for establishing trust between the caching server and the content provider.

17. A rights management method for securely pre-positioning content at a caching server, the method comprising:
providing a content provider communicably coupled to the a caching server;
providing a key management protocol comprising the steps of,
forwarding a key request message from the content provider to the caching server, the key request message for initiating key management;
responsive thereof, sending a key reply message from the caching server to the content provider; and
establishing a set of keys for securely delivering content from the content provider to the caching server.

18. The method of claim 17 further comprising
providing a consumer system for streaming content from the caching server.

19. The method of claim 17 further comprising
providing a key distribution center for establishing trust between the caching server and the content provider.

20. An authentication system allowing an authorized user to stream content from a caching server within a computing network, the system comprising:
a content provider for providing the content to the caching server for access by the user;
a key distribution center receiving from the content provider, a first request to access the caching server, and if authenticated the content provider delivers the content to the caching server; and

8 the key distribution center receiving from the user, a second request to access
9 the caching server, and if authenticated the user is allowed to stream the content from the
10 caching server.

1 21. The authentication system of claim 20 wherein the second request is
2 for a caching server ticket to access the caching server.

1 22. A protocol for securing data transfer between components of a
2 communication network:

- 3 a) providing a central server having a database;
4 b) publishing content metadata from a content provider to the central server;
5 c) providing a billing center server, communicably coupled to the central
6 server;
7 d) reporting billing information from a caching server to the billing center
8 server;
9 e) providing a provisioning database, coupled to the central server;
10 f) updating the provisioning database with consumer information; and
11 g) using a key management protocol to securely transfer data during any one
12 or more of step b), step d), and step f).

1 23. The protocol of claim 22 wherein
2 the key management protocol comprises
3 forwarding a key request message for requesting a session key; and
4 receiving a key reply message for providing a session key.